

**REMARKS**

The Official Action mailed January 9, 2008, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on November 26, 2003; January 8, 2004; January 20, 2004; February 3, 2004; September 29, 2005; April 3, 2006; and October 19, 2007.

A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 1, 2, 4-11, 13-20, 22-29, 31-38, 40-47 and 49-54 are pending in the present application, of which claims 1, 10, 19, 28, 37 and 46 are independent. Claims 1, 19, 22, 23, 26, 27, 37, 40, 41, 44 and 45 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action provisionally rejects claims 1, 2, 4-11, 13-20, 22-29, 31-38, 40-47 and 49-54 under the doctrine of obviousness-type double patenting over claims 1-25 of application Serial No. 10/792,797 to Tanaka. The Applicant respectfully requests that the double patenting rejections be held in abeyance until an indication of allowable subject matter is made in the present application. At such time, the Applicant will respond to any remaining double patenting rejections.

The Official Action rejects claims 1, 2, 4-11 and 13-18 as anticipated by U.S. Patent No. 6,700,096 to Yamazaki or U.S. Publication No. 2003/0136772 to Yamazaki, which is the pre-grant publication of the application that issued as Yamazaki '096. The Applicant respectfully submits that an anticipation rejection cannot be maintained against independent claim 1 of the present application, as amended. With respect to independent claim 10, the Applicant respectfully traverses the rejection because the Official Action has not established an anticipation rejection.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application. Independent claim 1 has been amended to recite a plurality of second laser oscillators; a plurality of means for controlling a shape and a position of a beam spot of the respective second laser beam; and that a portion of the beam spot of the first laser beam and an entire portion of a plurality of beam spots of the second laser beams are overlapped with each other. These features are supported in the present specification, for example, by page 20, lines 28-34; page 21, lines 15-19; and Figures 5 and 7. With this structure, it is possible that a "region which is melted by the first laser beam moves in the semiconductor film while keeping its melting state by the second CW laser beam." Thus, "crystal grains growing toward the scanning direction is continuously formed" (see page 4, lines 13-27). Independent claim 10 already recites that a beam spot of a first laser beam is larger than that of a second laser beam. For the reasons provided below, the Applicant respectfully submits that Yamazaki '096 or '772 does not teach the above-referenced features of the present invention, either explicitly or inherently.

In Yamazaki '096, by having a plurality of laser lights overlap each other and having the laser lights complement each other in each portion having a low energy density," one beam spot having a flattened energy density in a center axis direction is obtained (column 6, lines 15-34; Figure 3B). However, Yamazaki '096 does not teach that a portion of a beam spot of a first laser beam and an entire portion of a plurality of beam spots of second laser beams are overlapped with each other, either explicitly or inherently (compare, for example, Figure 3B of Yamazaki '096 with Figure 7 of the present application).

With respect to claim 10, which recites that a beam spot of a first laser beam is larger than that of a second laser beam, the Official Action does not address this feature. In any event, the Applicant respectfully submits that Yamazaki '096 does not teach these features, either explicitly or inherently.

Also, the Applicant notes that the Official Action includes a discussion of an "absorption coefficient," for example, at page 5. However, features relating to an "absorption coefficient" were removed from the claims in the *Amendment* filed April 12, 2007 (received by OIPE April 13, 2007). As such, it appears that arguments relating to such features are now moot.

Since Yamazaki '096 or '772 does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

The Official Action rejects claims 19, 20, 22-29, 31-38, 40-47 and 49-54 as obvious based on the combination of Yamazaki '096, U.S. Patent No. 6,242,292 to Yamazaki and U.S. Patent No. 7,132,375 to Yamazaki. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against independent claims 19 and 37 of the present application, as amended. Regarding independent claims 28 and 46, the Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found

either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 19 and 37 have been amended to recite that when a processing object (a semiconductor film) is irradiated with a first laser beam and a plurality of second laser beams, a portion of a first beam spot formed on a surface of the processing object (the semiconductor film) by the first laser beam and an entire portion of a plurality of second beam spots formed on the surface of the processing object (the semiconductor film) by the plurality of second laser beams are overlapped with each other. These features are supported in the present specification, for example, by page 20, lines 28-34; page 21, lines 15-19; and Figures 5 and 7. With this structure, it is possible that a "region which is melted by the first laser beam moves in the semiconductor film while keeping its melting state by the second CW laser beam." Thus, "crystal grains growing toward the scanning direction is continuously formed" (see page 4, lines 13-27). Independent claims 28 and 46 already recite that a beam spot of a first laser beam is larger than that of a second laser beam. Yamazaki '096, '292 and '375, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

Please incorporate the arguments above with respect to the deficiencies in Yamazaki '096. Yamazaki '292 and '375 do not cure the deficiencies in Yamazaki '096. The Official Action relies on Yamazaki '292 to allegedly teach "absorption specifically with respect to a semiconductor material" (pages 6-7, Paper No. 20080106) and on Yamazaki '375 to allegedly teach "that in the annealing and processing of silicon the

absorption coefficient of the amorphous silicon is approximately  $10^3$  to  $10^5/\text{cm}$ " (page 7, Id.). However, Yamazaki '096, '292 and '375, either alone or in combination, do not teach or suggest the following features or that Yamazaki '096 should be modified to include any of the following features: that when a processing object (a semiconductor film) is irradiated with a first laser beam and a plurality of second laser beams, a portion of a first beam spot formed on a surface of the processing object (the semiconductor film) by the first laser beam and an entire portion of a plurality of second beam spots formed on the surface of the processing object (the semiconductor film) by the plurality of second laser beams are overlapped with each other. Since Yamazaki '096, '292 and '375 do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

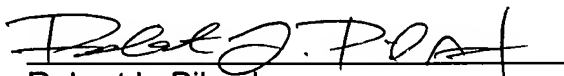
With respect to claims 28 and 46, which recite that a beam spot of a first laser beam is larger than that of a second laser beam, the Official Action does not address this feature. In any event, the Applicant respectfully submits that Yamazaki '096, '292 and '375 do not teach or suggest these features.

Also, the Applicant notes that the Official Action includes a discussion of an "absorption coefficient," for example, at pages 6-7. However, features relating to an "absorption coefficient" were removed from the claims in the *Amendment* filed April 12, 2007 (received by OIPE April 13, 2007). As such, it appears that arguments relating to such features are now moot.

Since Yamazaki '096, '292 and '375 do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Robert L. Pilaud", written over a horizontal line.

Robert L. Pilaud  
Reg. No. 53,470

Robinson Intellectual Property Law Office, P.C.  
PMB 955  
21010 Southbank Street  
Potomac Falls, Virginia 20165  
(571) 434-6789